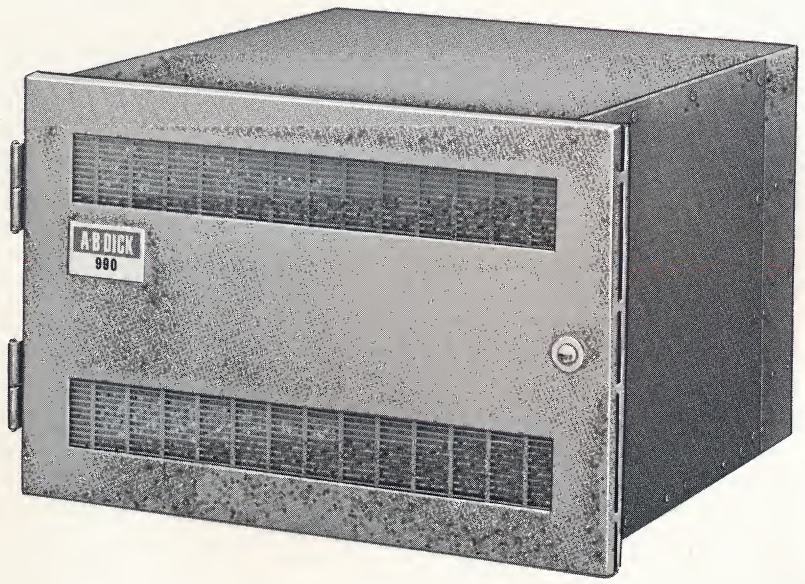
VIDEOGRAPH®

A·B·DICK

990 SERIES CCTV APPLICATIONS

990 SERIES



The Videograph 990 Series Display Contr Unit electronically generates video messag displays from digitally encoded alphabet and numeric information. Without the use supers and drop cards, explanatory messag information may be introduced and televise by the closed-circuit television system. Ext camera equipment and costly graphic ar work can be eliminated by A. B. Dick Con pany's new unit. Messages are entered in the Display Control Unit, stored, and co verted to a video signal ready for display mixing. Totally electronic, the 990 Series designed for 19 inch rack mounting.

Two information input channels provide f message entry through a keyboard or devic such as a paper tape reader, a magnetic tap transport, a computer, or the reception messages over telephone lines from a remo

EDUCATION

The 990 Series now makes it possible for schools and universities using closed-circuit television for classroom lectures to eliminate the costs incurred in preparation of necessary drop card and super card explanations used in CCTV presentations. In addition, the extra camera equipment needed in live presentations to incorporate message displays is eliminated. The Videograph Display Control Unit makes it possible to quickly and easily add explanatory messages to live or video taped educational CCTV lectures as well. The cost of preparation and the time required to add or change alphanumeric titles and messages to CCTV lectures is a major limitation to the effective use of CCTV in an educational application. The Videograph Display Control Unit provides an efficient, inexpensive means of overcoming this drawback. In effect, the 990 Series makes the television screen an electronic blackboard.

MEDICAL TRAINING AND COMMUNICATIONS

There is a growing use of closed-circuit television in the field of medical training and communications. Frequently a CCTV system will link the hospital operating room or clinical area with classroom and physician's offices to provide live or video taped presentations of surgical operations and other medical events.

The Videograph Display Control Unit provides the only realistic means of instantaneous insertion of explanatory information that is essential to a complete understanding of the event or condition displayed on the TV screen.

source. Messages can be composed on a television previewing monitor and stored indefinitely in the Display Control Units memory or punched into paper tape for later selective use with the television picture.

Magnetic core memory stores the digital message data and a solid state dot matrix character generator converts the digital message to an EIA Standard video signal. High resolution character display is achieved through the use of an 11 x 9 dot matrix for character formation, resulting in 22 interlaced scan lines per character line. Sixty-four characters may be displayed, including 26 alphabetics, 10 numerics and 28 punctuation, mathematical and special symbols.

Up to 512 characters may be displayed on the television screen at one time in sixteen rows of thirty-two characters per row. Optional features allow messages to crawl across the bottom or roll up the face of the screen. Full cursor control provides editing capabilities for changing or modifying messages.

INDUSTRIAL TRAINING AND COMMUNICATIONS

The 990 Series Display Control Unit is a valuable asset with industrial CCTV systems used for new product introduction, training and communication applications. Explanatory messages supplementing a CCTV training or product presentation are quickly added or changed at minimum cost. In addition, extra cameras and time consuming preparation of super cards are eliminated. The 990 Series makes it realistic to use a CCTV system for message communications or paging in an industrial environment. Paging messages can be quickly entered by an untrained operator through a keyboard and instantaneously displayed throughout the CCTV system, increasing flexibility and utility to the industrial user.

ANNOUNCEMENT

Closed-circuit television systems are in wide use as airline, railroad and bus terminal arrival and departure announcement systems. The 990 Series Display Control Unit provides extremely effective and economical means of entering and updating arrival and departure data. A special "Flash" function makes it possible to blink parts of the message to call attention to late arrivals and departures, or other special conditions. Schedule changes can be quickly introduced by a control room operator. A special feature of the 990 Series allows a line of data to be erased and the following lines to be moved up or to open up a line space and insert a new line of data thus allowing announcements to be kept in predetermined sequences. The quality to the display is greatly increased over that achieved by a television camera trained on large status boards, and auxiliary illumination is unnecessary.

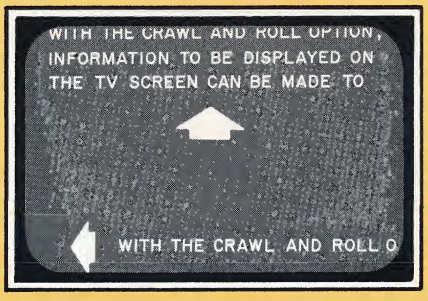
INDUSTRIAL AND COMMERCIAL SECURITY

Alphanumeric message communications can be easily added to closed-circuit television systems used to monitor commercial products on display, points of entry to a building, cash transaction locations and other places where it is necessary to check or provide security. A central monitoring point can instantaneously communicate with other guard stations, security offices or even a local police station using the alphanumeric message display capability of the Videograph Display Control Unit. Noisy alarm bells that can alert an intruder need not be used and dependence on voice telephone service that may be busy at a critical time is unnecessary with the 990 Series Display Control Unit.

OPTIONS

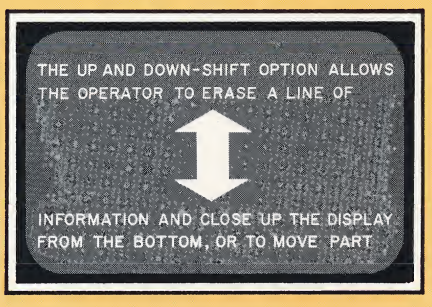
995 SERIES KEYBOARD

The Videograph 995 Series Keyboard is a low-cost manual input device for the Videograph 990 Series Display Control Unit. Compact and self contained, the Keyboard provides full 8 bit USASCII coding for direct interface up to 300 feet from the keyboard. Key encoding is performed by solid-state photodiodes, eliminating electrical interference in military and other critical environments. The Keyboard is self powered and totally solid state.



CRAWL AND ROLL

With the Crawl and Roll Option, information to be displayed on the TV screen can be made to appear one character at a time, as in typing, with a line of information moving continuously across the screen, from right to left, or to roll in a continuous movement allowing new lines of information to be added at the bottom of the screen as the top lines disappear.



UP AND DOWN SHIFT

The Up and Down-Shift Option allows the operator to erase a line of information and close up the display from the bottom, or to move part of a display downwards to insert fresh information.

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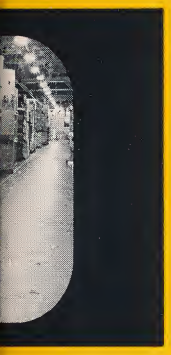

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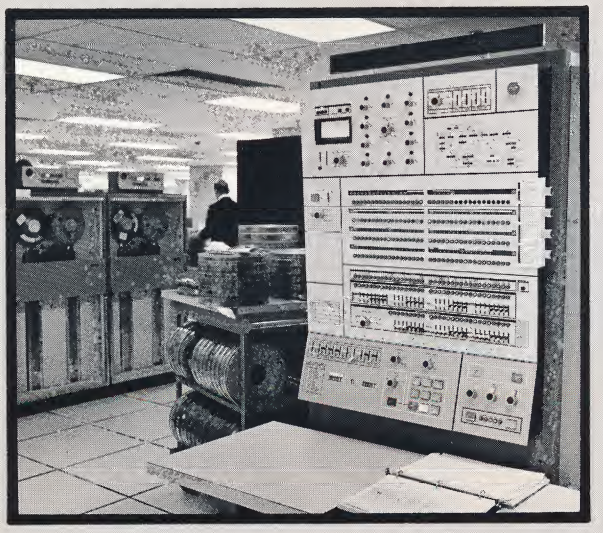


COMPUTER SYSTEM COMPATIBILITY

For the first time, through the use of A. B. Dick Company's 990 Series Display Control Unit, computer data processing systems can be electronically linked with closed-circuit television systems. The 990 Series is designed to accept USASCII coded digital data as input and to provide a commercially compatible video signal as output. Thus, information stored in a computer system can be transmitted to and accepted by the 990 Series Display Control Unit, converted to video signals and displayed throughout parts or all of a closed-circuit TV network. In addition, data entered to the 990 through the keyboard or other input devices can be returned to the computer system for storage, further processing, or to supply commands to the computer system for the retrieval of additional information to be displayed in the CCTV system. Linking the computer with the closed-circuit television network adds a new dimension to CCTV and makes possible wide dissemination of data stored in the computer that would otherwise be distributed only through printed reports that may be out of date by the time they are received. Selective display of data can be controlled by the computer so that only significant information need be shown. The closed-circuit television network will, in addition, continue to perform its primary function of the display and transmission of pictorial information. An application of such a CCTV/computer system might be in the classroom where mathematical calculations are supplied by the computer to go with a corresponding laboratory experiment transmitted over CCTV. Another application could be display of computer-stored corporate financial data or sales and inventory figures over a CCTV system used for sales training purposes. The applications of such a system are limited only by the imagination.

FEATURES

- **Full USASCII Compatibility**
- **Magnetic Core Storage**
- **High Resolution Display**
- **EIA Compatible Video — Uses Standard TV Sets or Monitors**
- **Special Blinking Feature Standard**
- **Compact Size, Occupies Only One Foot of Rack Space**
- **Full Range of Options, Including Telephone Dataset Interface**

SPECIFICATIONS

DATA INPUT Binary encoded, 8 bit parallel data (USASCII format) from keyboard, computer, data set or other digital source.

OUTPUT Compatible with commercial TV receivers or monitors, composite and non-composite sync.

DISPLAY FORMAT 16 lines of 32 characters per line.

CHARACTER STRUCTURE 11 x 9 dot matrix — 22 line resolution on standard TV receivers.

CHARACTER REPERTOIRE 64 USASCII characters standard.

DISPLAY MODES Stationary or selectable blinking for any character, word, or line.

TRANSFER RATE Up to 4 μs into memory.

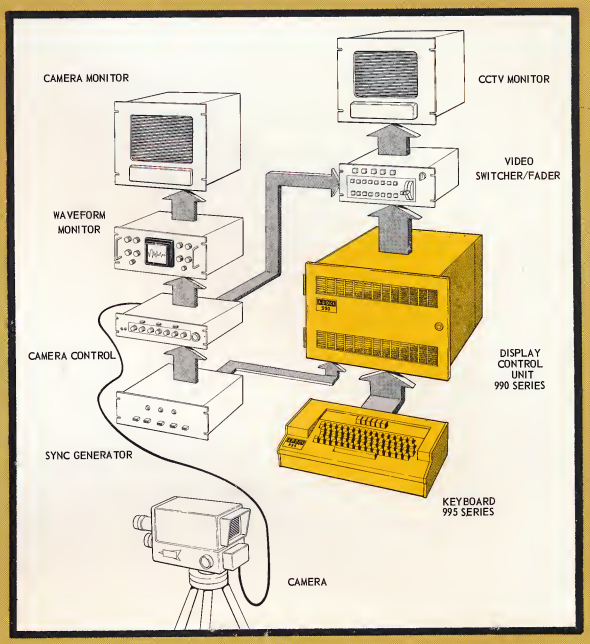
MEMORY 4096 bit, 512 USASCII character capacity.

POWER 117 V, 60 Hz 130 watts.

ENVIRONMENTAL Ambient Range: 10-50°C, 5-95% RH.

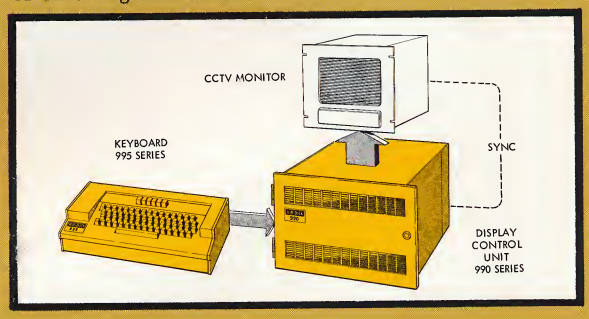
SINGLE CAMERA SYSTEM WITH SERIES 990

Shown is a typical single camera system integration of Videograph Series 990 with existing system components. The Series 990 derived video can be handled in the same manner as camera derived video, but without the necessity of the auxiliary control equipment normally required.



BASIC DISPLAY TERMINAL

The most basic display terminal utilizing the Series 990 is shown below. Only a monitor or conventional TV set is required to provide sync information and display facility. Input is provided by the Series 995 Keyboard or other digital sources.



VIDEOGRAPH®

ELECTRONIC DATA PRESENTATION

A. B. DICK COMPANY

5700 W. TOUHY AVE. CHICAGO, ILL. 60648 (312) 763-1900

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